WE CLAIM AS OUR INVENTION

Patent Claims [NOTA BENE: another, partly illegible, amended page of patent claims 1-3 of unknown origin and purpose is attached to the PCT Communication dated 3 August 1999]

1.   Method for encoding a digitalized image with picture elements,

5   -   whereby the picture elements are grouped into a plurality of image segments,

-     whereby the grouping ensues such that at least one picture element is not allocated to an image segment for at least one part of the image between image segments, and

10   -   whereby only the picture elements that were allocated to an image segment are encoded.

2.   Method for encoding and decoding a digitalized image with picture elements,

-     whereby the picture elements are grouped into a plurality of image

15   segments in a first arrangement,

-     whereby the grouping in the first arrangement ensues such that at least one picture element is not allocated to an image segment for at least a part of the image between image segments,

-     whereby only the picture elements that were allocated to an image

20   segment are encoded in the first arrangement,

-     whereby the encoded image segments are transmitted from the first arrangement to a second arrangement,

-     whereby the image segments are decoded in a second arrangement,

-     whereby new picture elements corresponding to non-encoded picture

25   elements of the encoded image are inserted in the second arrangement between the decoded image segments, and

-     whereby an interpolation is implemented between the image segments in the second arrangement, as a result whereof encoding information is allocated to the new picture elements.

30   3.   Method according to claim 1 or 2, whereby a filtering of the image to be encoded ensues before the encoding.

4.	Method according to claim 2, whereby a low-pass filtering ensues as interpolation.

5.	Method according to claim 2,

-	- whereby a filtering of the image to be encoded ensues before the encoding, and

-	whereby a low-pass filtering ensues as interpolation.

6	Method according to claim 4 or 5, whereby the low-pass filtering ensues essentially at the image segment edges.

7.	Method according to one of the claims 4 through 6, whereby an interpolation filtering ensues after the decoding.

8.	Method according to claim 7, whereby the interpolation filtering essentially ensues at the image segment edges.

9.	Method according to one of the claims 1 through 8, whereby the image segments are realized by image blocks.

10.	Method according to claim 9, whereby at least respectively one picture element is not allocated to any image block between the image blocks.

11.	Method according to one of the claims 2 through 10, whereby a plurality of filters are employed for the interpolation.

12.	Method according to claim 11, whereby the selection of the filters ensues dependent on the image quality of an image block, whereby the strength of the filter employed increases with the reduction of the image quality of the image block.

13.	Method according to claim 11 or 12, whereby the selection of the filters ensues dependent on the motion vector of an image block, whereby the strength of the filter employed increases with the size of the motion vector that is allocated to the respective image block.

14.	— Method according to one of the claims 1 through 8, whereby the encoding ensues according to the H.263 standard.

15.	Method according to claim 2,

-	whereby the encoding ensues according to the H.263 standard, and

- whereby the encoding is communicated from the first arrangement to the second arrangement upon employment of a capability table according to the H.245 standard.

16. Method according to one of the claims 1 through 15, whereby a motion compensation is implemented upon employment of the digitalized image.

17. Arrangement for encoding a digitalized image having picture elements, whereby a processor unit is provided that is configured such that

- the picture elements are grouped into a plurality of image segments,
- the grouping ensues such that at least one picture element is not allocated to an image segment for at least one part of the image between image segments, and
- only the picture elements that were allocated to an image segment are encoded.

18. Arrangement for encoding and decoding a digitalized image with picture elements

- comprising a first arrangement wherein a processor unit is provided that is configured such that

-- the picture elements are grouped into a plurality of image segments,

-- the grouping ensues such that at least one picture element is not allocated to an image segment for at least one part of the image between image segments,

-- only the picture elements that were allocated to an image segment are encoded,

- comprising a transmission means with which the encoded image segments are transmitted from the first arrangement to a second arrangement,

- comprising a second arrangement whereat a processor unit is provided that is configured such that

- the image segments are decoded,

- new picture elements corresponding to non-encoded picture elements of the encoded image are inserted between the decoded image segments, and

- an interpolation is implemented between the image segments, as a result whereof encoding information is allocated to the new picture elements.

19.   Arrangement according to claim 18, whereby the processor unit is configured such that a low-pass filtering ensues as interpolation.

20.   Arrangement according to one of the claims 17 through 19, whereby the processor unit is configured such that

5   -   the image segments are realized by image blocks, and

-        at least respectively one picture element is not allocated to any image block between the image blocks.

21.   Arrangement according to one of the claims 18 through 20, whereby the processor unit is configured such that a plurality of filters are employed for the

10   interpolation.

22.   Arrangement according to claim 21, whereby the processor unit is configured such that the selection of the filters ensues dependent on the image quality of an image block, whereby the strength of the filter employed increases with the reduction in the image quality of the image block.

15   23.   Arrangement according to claim 21 or 22, whereby the processor unit is configured such that the selection of the filters ensues dependent on the motion vector of an image block, whereby the strength of the filter employed increases with the size of the motion vector that is allocated to the respective image block.

24.   Arrangement according to one of the claims 17 through 23, whereby the

20   processor unit is configured such that the encoding ensues according to the H.263 standard.

25.   Arrangement according to claim 19, whereby the processor unit is configured such that

-        the encoding ensues according to the H.263 standard, and

25   -   the encoding is communicated from the first arrangement to the second arrangement upon employment of a capability table according to the H.245 standard.

26.   Method according to one of the claims 17 through 25, whereby the processor unit is configured such that a motion compensation is implemented upon employment of the digitalized image.

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